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NATIONAL PHOTOGRAPHIC INTERPRETATION CENTER



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Imagery analysis report

Troposcatter Links in Egypt (S)

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TROPOSCATTER LINKS IN EGYPT (S)

1. (TSR) Five troposcatter links have been identified in Egypt on overhead imagery obtained through [redacted]. Three of these links—Siwa Oasis to Matruh, As Suways to Al Ghurdaqah, and El Maraziq to Ras Shukhayr—appear to be operational. A fourth link—Al Arish to Al Ismailiyah—is no longer operational following removal of the antennas at the Al Ismailiyah station. The operational status of the fifth link—with one terminal at Aswan and the other not identified to date—has not been determined.
2. (TSR) The Siwa Oasis, Matruh, As Suways, and Al Ghurdaqah stations consist of a mobile system, designed for military use, which provides multichannel tactical communications. The El Maraziq Troposcatter Station and the Ras Shukhayr Troposcatter Station are adjacent to petroleum-related facilities—El Maraziq Gas Processing Plant [redacted] and Ras Shukhayr Crude Petroleum Terminal Storage [redacted]—and probably serve these facilities.
3. (TSR) Following the return of Al Arish to Egyptian control last summer under the terms of the new Egyptian-Israeli peace treaty, a troposcatter link between Al Arish and Al Ismailiyah in the northern Sinai was established. However, this link was probably meant to provide only a temporary communications capability until a more permanent system could be built, because more recent overhead imagery reveals that the dishes at the Al Ismailiyah station have now been removed.
4. (TSR) The station at Aswan has two large, fixed troposcatter dishes that are oriented to the southwest and are capable of operating over a distance of 100 to 200 nautical miles. It is likely that these antennas are intended to correspond with the Wadi Halfa area of Sudan, although no station has yet been identified there on overhead imagery.
5. (TSR) Table 1 presents information on antennas at the stations, and an accompanying map (Figure 1) shows the locations of the stations and their correspondents.

(S) Comments and queries regarding this report are welcome. They may be directed to [redacted] Third World Forces Division, Imagery Exploitation Group, NPIC, [redacted]

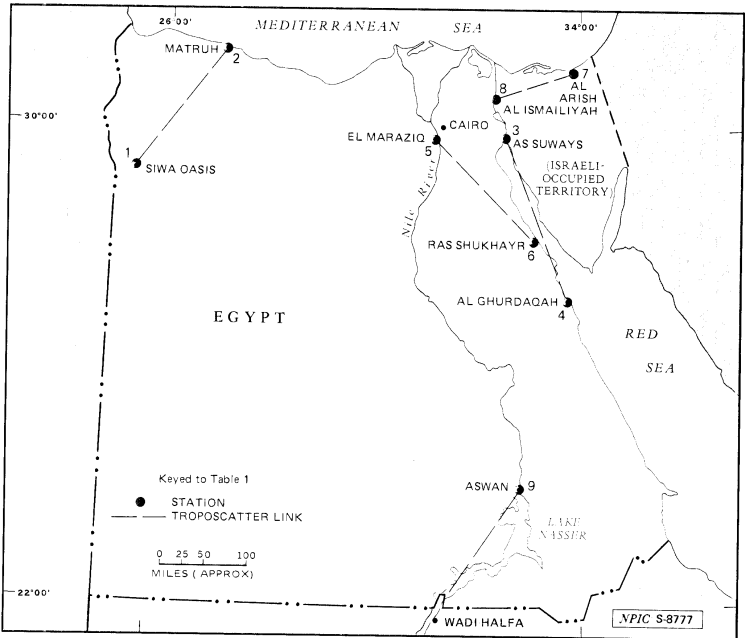


FIGURE 1. TROPOSCATTER STATIONS AND LINKS IN EGYPT

Table 1.
Troposcatter Links in Egypt
(Keyed to Figure 1)

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Item	Name BE No Coordinates	Imagery Date	Electronic Order of Battle	Orientation*
1	Siwa Oasis Troposcatter Station [redacted] 29-11-25N 025-30-57E		2 prob Collins AN/TRC-132V antennas	Matruh Radio-Relay Station (35 degrees)
2	Mersa Matruh Radio-Relay Station [redacted] 31-20-28N 027-14-30E		2 Collins AN/TRC-132V antennas 2 microwave dishes 1 lattice tower	Siwa Oasis Troposcatter Station (215 degrees)
3	As Suways Troposcatter Station [redacted] 30-01-05N 032-28-40E		1 [redacted] troposcatter dish 1 troposcatter dish	Al Ghurdaqah Troposcatter Station [redacted]
4	Al Ghurdaqah Troposcatter Station [redacted] 27-13-54N 033-47-31E		1 [redacted] troposcatter dish 1 [redacted] troposcatter dish	As Suways Troposcatter Station [redacted]
5	El Maraziq Troposcatter Station [redacted] 29-49-45N 031-13-32E		2 troposcatter dishes, each high from the ground	Ras Shukhayr Troposcatter Station (135 degrees)
6	Ras Shukhayr Troposcatter Station [redacted] 28-07-50N 033-15-30E		2 [redacted] troposcatter antennas with a square notch cut out of each corner	El Maraziq Troposcatter Station [redacted]
7	Al Arish Troposcatter Station North [redacted] 31-08-25N 033-48-05E		2 prob Collins AN/TRC-132V antennas 1 HF antenna	Al Ismailiyah Troposcatter Station Northwest [redacted]
8	Al Ismailiyah Troposcatter Station Northwest [redacted] 30-35-23N 032-14-28E		None (Collins antennas present in Jul 79)	Al Arish Troposcatter Station North (when antennas were present)
9	Aswan Troposcatter Station [redacted] 24-04-59N 032-54-27E		2 19-m troposcatter antennas	Sudan [redacted]

*± 10 degrees from true north.

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